ERIODICAL Indo-Pac. Fish. Council
Current Affairs Bull.
FEB 18 1953
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CURRENT AFFAIRS BULLETIN

ISSUED BY THE IPFC SECRETARIAT, FAO REGIONAL OFFICE, BANGKOK, THAILAND.

No. 9 NOVEMBER — DECEMBER, 1952.

AUSTRALIA

Fish Production :- The seas fringing the Australian continent are reported to have yielded £ A 7,500,000 worth of scale fish, prawns, oysters, whale oil and meal, mother of pearl and trochus shell in 1950-51. About one-fourth of this came from frozen crayfish tails alone exported to the U.S.A.

The Australian fish canning industry has during the past one and a half decades evolved into a vigorous, progressive industry with a capital value estimated at £ A 1,000,000. However, the yearly production which has of late steadied at about 12,000,000 lbs. caters to only about a quarter of the annual requirements.

Trawling :- Sixty eight experimental hauls, 37 with beam trawl and 31 with otter trawl, in depths ranging from 2 to 10 fathoms and on varying bottoms by the "Lancelin" off Western Australia have shown that the trawl catches depended chiefly on the state of the tide and that the hour of the day was of no real importance.

Trout Culture :- The opening of a new set of trout rearing ponds at Pemberton marked a stage of advance in the progress of trout acclimatisation in the area. The Hatchery of the Trout Acclimatization Society incubated 1,054,670 ova this year (May to July). Nine hundred and sixteen rainbow trouts were stripped besides some brown trouts. Loss to hatchling-stage was only about 20%. By handling of the fish in cradles of $\frac{1}{2}$" net one male could be used for fertilizing five females.

Casting Competition :- A successful casting competition was held at the Pemberton swimming pool.

Whaling :- Early in the last century American whalers observed the occurrence on Australia's west coast of the humpback whale on its annual migration from May to October to and from the warmer waters off the North-west. Since then various agencies have attempted to exploit this whale fishery. Modern whaling methods were introduced in 1912 and the operations which followed were initially successful but had to be closed down on account of the restrictions imposed by World War I. After a brief revival from 1925 to 1929 under the efforts of a Norwegian company, there was again a lull till 1936 when two foreign fleets operated outside territorial waters. Soon the State Government permitted two American pelagic fleets to fish for whales in the Shark Bay area. In 1949 a local company, the North-West Whaling Company was started and the success of its initial efforts led to its floatation as a limited liability company. In the same year the

Commonwealth set up the Australian Whaling Commission for conducting shore whaling on the Western Australian coast. By 1951 both these concerns grew quite active, and the catch of the Commission alone between June and October totalled 650 whales. This high catch has been maintained, 600 whales having been obtained in 1952. A third company, the Cheyne Beach Whaling Co., Ltd, has also come into being, and despite some initial difficulties, it is expected to be a successful enterprise.

The Nations participating in whaling on the high seas came together in an International Whaling Conference held in London in 1937. Further conferences followed in 1938 and 1944 and it has become an annual feature in one country or another. The conference prescribes conservancy measures consistent with rational exploitation, and all the countries which are signatories to the Whaling Convention and Protocol are bound to observe them. Thus Australia has a prescribed quota of humpback whales, and the annual catches are not to exceed this limit.

CEYLON

FAO Expanded Technical Assistance :- Mr. E R. Kvaran of Iceland has been appointed Marine Engineer Superintendent to Ceylon. Mr. Kvaran had his training in mechanical engineering in the University of California, Berkeley, and since 1945 he has been in charge of the mechanical plants and workshops serving the fishing fleet of the Icelandic State Herring Factories.

Mr. C. G. Bjuke of Sweden has been appointed Fish Harbour Engineer.

Mr. Alan Glanville will in January resume his work on mechanizing small craft and improving fishing methods.

HAWAII

POFI Officers' Movements :- Mr. O. E. Sette attended the Tuna Biologists' Conference at San Francisco.

Tuna Investigations :- A long line fishing cruise of the M/V Hugh M. Smith along 120° W between 10° N and 10° S showed a low frequency of deep swimming tunas (average 2.11 per 100 hooks). A summary of long line catches up though the Cavalieri cruise shows a concentration of yellow fins between 1° S and 6° N latitudes. The best average catches along the equator have been made from 140° W to 170° W with a peak at 150° W.

Baiting experiments with sardines and squid brought out impartial taking by yellowfin, whereas bigeyed tuna appeared to show a decided preference for the sardines. Larval tunas have been identified, yellowfin definitely down to 12 mm and tentatively from 10.4 to 3.5 mm.

Analysis of data relating to productivity of tropical waters indicate a longitudinal variation in zooplankton abundance with the average volumes (cc/100 meters^3) for latitudes 10° N. to 50° S. increasing progressively from 23.8 at 180° to 42.2 at 140°. The bathythermograph and temperature data indicated strong upwelling at the equator with sinking of the upwelled water at two points to the northward.

Comparison of Yellowfin Stocks :- A "Preliminary Report on a comparison of the stocks of Yellowfin Tuna" has been issued. Pursuant to the interest expressed by the Indo-Pacific Fisheries Council at its general Meetings and at the Meetings of the Tuna Sub-committee of its Technical Committee I on studies of the nature and distribution of the populations of important tuna species, morphometric data were collected from the Indo-Pacific region. The POFI undertook to analyse these data and to compare tunas

from many parts of the world. The first results of this study of 3,617 Yellowfin Tuna out of samples from 14 areas in the Pacific Ocean, one off Sugola, East Africa, in the Atlantic Ocean and one off Ceylon in the Indian Ocean, presented in the report seem to indicate that the stocks are at least semi-independent but probably comprise a single world-wide species. A "Comparison of Yellowfin Tuna of Hawaiian Waters and of the American West Coast" has just been published by the Fish and Wildlife Service.

Depth Recorder indicates faunal density: - The Bendix depth recorder operated routinely by the research vessel J. R. Manning revealed striking difference in the number of echoes at different depths and different latitudes. These echoes are interpreted to be probably due to animals in the water, and in that case the depth recorder affords a further indication of the much greater richness of fauna in the immediate vicinity of the equator. The instrument also indicated the depth of the long line.

HONG KONG

Hong Kong Fishering :- Hong Kong being situated in the centre of some of the richest fishing grounds in the world and close to the large potential markets of Indonesia, Malaya, Philippines and Borneo, the colony's fishing industry has a bright prospect. Fish, the Colony's main product, also forms the staple diet of the local population especially among the poorer strata. About 50,000 people are estimated to be engaged in the industry and the main fishing centres are at Cheung Chan, Aberdeen and Taipo. There are also several scattered fishing settlements. Of the 5,000 fishing craft in the colony, most are junks of Chinese design, constructed locally from imported wood and owned by fishing families.

The main catches are Golden thread, Grouper, Lizard fish, Red Sea Bream, Croakers, Mackerel Scad and Anchovies. Fishing operation figures for the past two years were, 1950: 16,425.48 tons and 1951: 22,138.33 tons. Annual Local transactions in fish total about HK $ 42,000,000. A glut of golden sardines was experienced this year, but owing to low prices fishermen were hesitant to go after the fish. Import restrictions by the Chinese authorities have had a very adverse effect on the trade.

The fish sale is controlled by the Government Fish Marketing Organization, which attends to transport and the sale at the wholesale markets the chief of which are at Aberdeen, Shaukiwan and Taipo. The fishermen pay 6% of the gross sales proceeds to the Organization. The latter grants short and long term loans to needy fishermen for repairs to their gear etc. and scholarships for the education of fisherchildren. Some attention has been paid to mechanization of fishing craft and at present the power-driven fishing fleet consists of 137 vessels. The details relating to mechanization and the trends of fish marketing in Hong Kong have been given in the previous issue of the C. A. B

The storage problem is also receiving the Government's attention. For details of a commercial drier constructed in the Aberdeen fish market, see C. A. B. No. 7. Fish seed export to Malaya, Thailand and Formosa is also conducted on an appreciable scale.

As mentioned in recent issues of the Bulletin (No. 5 & 7) a research unit has been set up in the university for work on fish culture and marine fishery survey for which a 60 foot research vessel is being constructed.

INDIA

FAO Expanded Technical Assistanance :- Mr. van der Heyden has commenced his work relating to brackish-water fisheries in West Bengal. At the request of the Government of India and the U. S. T. C. A. in India, Mr. J. O. Traung, naval architect of the

FAO Headquarters, will be visiting New Delhi in January, 1953, as Consultant in the purchase of fishing equipment for India.

Officers' Movements :- A Commission consisting of the Government of India's Fisheries Development Adviser, three State Directors of Fisheries and a Consultant of the U. S. Technical Aid Programme has completed a world tour for selecting equipment in connection with the proposed expanded fisheries programme. En route they visited the Far East Regional Office at Bangkok and conferred with the Fisheries Division.

Fisheries of Uttar Pradesh :- The fishery resources of Uttar Pradesh, which is an inland State, are limited to a network of rivers and streams and confined or semi-confined sheets of water in the form of lakes, reservoirs, tanks and ponds, most of which had for long remained undeveloped if not entirely unexploited. With a view to conserving fish seed sources especially in riverine breeding grounds and to utilizing all suitable perennial waters for fish-culture, the State Government passed the U. P. Fisheries Act in 1948. The Tank Stocking and Development Scheme jointly financed by the Central and State Governments on a 50:50 basis was launched under the "Grow More Food" campaign, under which pisciculture was first started in 1945 in six districts with Headquarters at Allahabad. The operations were steadily extended to additional districts until there came to be a total of 31 districts under the Tank Stocking and Development Scheme.

Initially, to meet the Defence Department's requirements of fish, cleaning and stocking of idle waters was taken up by requisitioning the latter under the Defence of India Rules. With the lapse of these in 1947 those tanks were released to the owners, and culture was almost confined to waters owned by the Government and Local Boards.

Seeds for stocking are collected from riverine grounds mostly in the eastern districts and distributed to the areas of operation. Seasonal waters are proposed to be utilized for raising murrels (*Ophicepalus*) and other mud fishes. Wherever required, the waters will be stocked with larvicidal fishes for the control of mosquito-borne diseases. Experiments on paddy-cum-fish-culture have also been started. Fish farming through private enterprise is encouraged.

The hill streams and lakes of Kumaon and Garhwal have also been taken up for utilization. Mirror carp introduced in 1947 from Ootacamund (Madras) has bred successfully. Darjeeling Mahaseer — an excellent sport fish — brought from Siliguri in 1951 and Gourami taken from Bombay in 1952 are under observation. A trout hatchery has been taken over from the Forest Department and is being renovated in order to augment trout culture. Arrangements are also afoot to bring Rainbow trout from Kashmir.

A variety of barrier stake net called the Roak is used for night fishing in the River Ganga after the subsidence of floods. Roak operators pay an annual royalty to the State and contribute an equal amount to the fishermen's benevolent fund. It is contemplated to form a Roak Fishermen's registered Cooperative Society.

A Research Section of the Fisheries Department was created in 1947. It consists of a central laboratory at Lucknow with four sub-stations at Banares, Bhowali, Rampur and Mirzapur, where field investigations are undertaken. Special attention is paid to growth studies.

Training is offered to fishermen, departmental staff, university graduates and others interested in the industry in fishing methods, the biology of food fishes and the manufacture of fishing gear. Seventeen stipendiaries and twelve departmental fishermen have so far been trained, and a summer course of fisheries training for university students has also been conducted.

General :- The Indian National Scientific Documentation Centre (INSDOC) :- With the assistance of the UNESCO, the Government of India has set up a scientific documentation centre (INSDOC) under the auspices of the Indian Council of Scientific and Industrial Research and under the administrative control of the Director, National Physical Laboratory. The services of an expert each in documentation and translation respectively has been made available by the UNESCO for the project, and an Expert in Photographic reproduction is also being recruited. Arrangements are provided for furnishing on request bibliographic, mircrofilming, photocopying and translating services dealing with physical sciences to begin with. The services will soon be expanded to cover other branches of science and technology. A nominal fee is charged. Requests for services are to be addressed to INSDOC, National Physical Laboratory, Hillside Road, New Delhi, 12.

MALAYA

Fishing :- The fishing activities showed a rise during August—September 1952, although the landings revealed a slight decline in certain cases. Thus the fish landings in August which amounted to 169,014 Pkls. as against 165,088 Pkls. in July, fell to 150,829 Pkls. in September. There were 11,180 gears in August as against 10,819 in the previous month and it increased further in September to 11,734.

Fresh-water Fisheries :- Local firms in Singapore imported 520,000 carp fry by steamer. About 65% of them survived the sea journey. A survey of fish ponds was undertaken in Kelantan where there are about two hundred ponds rearing Tilapia.

General :- A conference of Fisheries Assistants in the North-East Region was held in Kuala Trengganu.

Mr. Liston, Scottish fishing expert with a crew of four, is to operate with a ring net boat "Trustful IV" in Malayan waters for catching surface fishes such as Kembong and Chinchorn.

PAKISTAN

FAO Expanded Technical Assistance :- Mr. K. H. Magnusson of Sweden has been appointed naval architect to Pakistan.

PHILIPPINES

The 5th Commencement Exercises of the Philippine Institue of Fisheries Technology, Training Division of the Bureau of Fisheries, took place on November 28, 1952. Altogether, there were 51 graduates - 20 in Fish Capture course, 18 in Fish Culture course, and 13 in Fish Preservation course. Dr. Roland Renne, Chief of the U. S Mutual Security Agency Mission, in his address stated that provisions for specific fisheries projects have been made in the joint economic development program and that two projects are now being considered — one covering fish pond culture and development, and the other a plan for the rehabilitation of the Institute of Fisheries Technology. The first project will provide machinery, equipment and personnel to increase output in four selected fish pond areas, and the second contemplates construction of a techological building adequately provided with laboratory and scientific equipment and machinery. The project proposes to spend some 58 thousand dollars and more than half a million pesos in the rehabilitation of the Institute of Fisheries Technology.

A party from Vietnam and Cambodia headed by Mr. E. Timmis, MSA Fisheries Specialist to Cambodia, Laos, and Vietnam, spent five days in Manila, making observa-

tions of certain phases of the Philippine fisheries industry and studying the governmental system of administration of the fisheries. They were shown the different offices of the Bureau of Fisheries, the experimental stations, fish landings, fish pond operations and trawling operations in Manila Bay. Series of lectures were given in the different places which they visited. The party left for Djakarta on December 6.

THAILAND

Fish Trade with Indonesia :- Figures of Thailand's monthly trade with Indonesia for the period from April 1951 to May 1952 show a continuous export of fish as follows in Kg.-

1951 April - 364,015; May - 713,313; June - 657,984; July - 1,349,634; August - 1,761,898; September - 2,340,023; October - 1,943,994; November - 2,187,670; December - 1,978,623; 1952 January-3,004,853; February-1,604,553; March-2,551,220; April-1,591,903; May - 2,076,354.

FOOD AND AGRICULTURE ORGANIZATION

Indo-Pacific Fisheries Council:- Forty representatives from fifteen Member Governments attended the 4th Meeting of the Indo-Pacific Fisheries Council, the new Member Government, Japan being represented by three fisheries officers. Besides, there were observers from four other international organizations, viz., S. P. C., UNESCO, UNO. and P.S.C. The FAO was represented by Mr. W. H. Cummings, the Regional Representative of the Director-General and Dr. D. B. Finn, Director, Fisheries Division. Mr. G. M. Gerhardsen and Dr. G. L. Kesteven of FAO Fisheries Division, Rome, acted as Technical Secretaries and Dr. Cecil Miles, Regional Fisheries Officer for Asia and the Far East, as Secretary General.

Among the recommendations made during the Meeting are: (I) provision of international specialists attached to the Regional Office for fuller implementation of fisheries programmes; (II) meetings to alternate between the Regional Office where it was believed greater reference facilities existed, and a Host Country; (III) commending to the UNESCO, through the Director-General, basic oceanographic research for priority consideration; (IV) authorization of the Executive Committee to represent the Council at FAO Pre-Conference Meetings; (V) next Meeting to be held at Bangkok, Thailand, in January 1954, at the invitation of the Thai Government etc.

Monsieur R. Serene of France was elected Chairman for the ensuing period and Nai Boon Indrambarya of Thailand is the new Vice Chairman.

Officers' Movements :- Dr. D. B. Finn, Director, Fisheries Division, visited Bangkok, Calcutta, Delhi and Karachi on his way back to Rome after attending the Quezon City Meeting of the IPFC.

Mr. Gerhardsen and Dr. Kesteven visited Hong Kong, Bangkok, Calcutta, Dacca, Madras, Colombo, Bombay and Karachi to discuss with the local fisheries administrators ways and means of implementing the Division's work in the Region and to consult with FAO experts in the area.

Hans Zimmer of Norway has taken up a temporary assignment with the Technology Branch to study beach-landing craft in use in Europe, with a view to their introduction or adaptation in several countries in Latin America and the Far East where harbours are not available.

D. D. Tapiador of the Philippines has taken up his assignment as Fisheries Technologist (TA).

Council Session :- The Sixteenth Session of the FAO Council which took place at Rome was marked particularly by the apparent desire of Council Members to achieve concrete

results in a spirit of compromise and mutual goodwill.

International Boat Conference :- France has extended an official invitation to FAO to hold an International Fishing Boat Conferance in Paris in 1953.

GENERAL

Fish Lift for North Scotland :- In view of the Indo-Pacific Fisheries Council's continued insistence on the necessity to investigate the effect on the migratory species of fishes, especially Hilsa, of dams, weirs, and anicuts constructed in the Region in connection with multiple purpose river development projects, it is interesting to record that a new and simplified type of fish lift has been developed by Mr. J. H. Borland, of Glenfield and Kennedy, Ltd., Kilmarnock, and will be officially adopted in connection with salmon in Scotland. The basis of the unit is that the fish enter the lift, attracted by the flow of water. The gates are closed and the lift flooded, the salmon thus being carried to its top and so out to the dam; the lower gate is then opened and the water released to restart the process.

Fish Taxi over Dam :- Pennsylvania used to enjoy once a million dollar shad industry; but it was very adversely affected by the construction of three huge power dams across the Susquehanna River. The dams put an end to the annual spring shad run in the river from the Chesapeake Bay, which used to be one of the largest fish migrations in America. Present attempts to restore the fishery include a fish 'taxi' service, hauling up in tank trucks adult shad netted from the Chesapeake Bay and releasing them upstream above the dam. The objects of the experiment are to find out (i) if adult shad will stand such transportation; (ii) if the transported adults would spawn successfully and (iii) the extent of mortality of adult and juveniles on their passage over the dam back to the ocean.

Electric Fishing :- Mr. N. MacKenzie, Fishery Officer, the Ouse River Board, is reported to have developed one of the most mobile and handy of electrical fishing equipments. Petrol-engine and generator are carried in a steel frame which can be turned into a "wheel barrow" by means of detachable wheel and handles. To this is connected a wooden rod with a "live" spoked wheel at the end. Another arrangement operates on DC and has two live electrodes at the end of wooden rods. When the former is used all fish coming within 8 feet of the wheel are stunned and can be netted easily for inspection. The latter, primarily for lakes, attracts the fish and enables them to be netted before sinking into deeper water.

The machines do not harm the fish or affect fertility Stunning lasts only a few minutes. It is useful for inspection of fish and removal of coarse fish. Possibilities of commercial development are limited since muddy water cuts down voltage and seawater would do so even more and the cost might be prohibitive.

Telephone-Fishing :- Some of the fishermen of Oklahoma use the old-fashioned crank type telephones for fishing in lakes and streams. Two large, square screens are attached to the wires extending from the phone and dropped to the bottom of the lake or stream. A few hefty cranks are given on the phone. The fish, shocked, rise to the top whence they are easily netted out. It is reported that in areas where old-style telephones are still in use the owners take them off the wall, go fishing, and then return to install their phones and call their neighbours to speak about the catch.

Midwater trawling :- Based on the Icelandic midwater trawling methods, English experiments undertaken in Hull and Grimsby would enable trawling at any required depth. Skippers of ships equipped with any of the echo-sounding devices would thus be able to set a depth indicator, and their floating nets

would go down to the level of the shoal.

Blast Freezing of Fish :- Shafts of frozen air are directed by fans on to the fish usually laid out in trays for about 4 (for sea trout) to 8 hours (for salmon). The frozen fish are placed in water before being boxed. The fish thus get encased in an air-excluding jacket of ice. The treated fish are kept in a chamber at a temperature of 22° F. By this method the firmness and flavour is not lost. Provision against soil freezing and floor-burst is included in the plant.

Popularity of Carp :- Carp is beginning to grow popular in the United States, especially in the South East. Pennsylvania in recent years has annually supplied over 50 ponds with about 75,000 pounds of live carp. In 1951 over 200,000 pounds of carp trapped in Wisconsin waters were transported alive to artificial ponds in adjacent States. Wisconsin is concurrently campaigning for a wider use of carp as food. Last year the State sent over 4 million pounds of carp to market.

Fish for School lunches :- Home economists of the Fish and Wildlife Service presented demonstrations to school lunch personnel to encourage greater use of fish in the National School Lunch Programme. These are reported to have led to a general increase of 40 to 50 per cent in the use of fish by schools.

Seaweed Symposium :- In the first International Seaweed Symposium held recently in Edinburgh, the various uses of Seaweed in chemistry, medicine, surgery, nutrition and agriculture, including its use as a fertilizer and as a feed for livestock were discussed. The delegates were impressed with the progress achieved in the Scotiish laboratories in experiments with seaweed products.

Handbook of fish culture Practices :- At the invitation of the Food and Agriculture Organisation, Dr. S. L. Hora, Director, Zoological Survey of India, Calcutta, the well-known international authority on Asian fishes has undertaken the preparation of a Handbook of fish cultural practices in the tropical and sub-tropical countries of the world. Dr. Hora has commenced the project with the assistance of a small staff which is housed in the Museum House, 1, Sudder Street, Calcutta-13. The Handbook, which is expected to be ready by the end of 1954, is intended to serve as a practical guide to fish culturists and fisheries extension workers in the underdeveloped countries of the world, where immense possibilities exist for the improvement of the diet of the people through the development of fish culture. Dr. Hora will welcome correspondence on all matters connected with the projected Handbook.

PUBLICATIONS

FAO Publications :- "Modern Whaling and its Prospects" by Dr. Johan Rudd, Director, Whale Research Institute, Oslo.— FAO F. Bull. **5** (5).

"Some Aspects of the Primary Productivity of the sea" by Dr. H. U. Sverdrup, Professor of Geophysics, Oslo.— to appear in FAO F, Bull. **5** (6).

"Fisheries of the Indo-Pacific Region 1951-52" by Dr. G. L. Kesteven, Chief Marine Biologist FAO.— to appear in FAO Fish. Bull. **6** (1).

A supplement to World Fisheries Abstracts to cover textbooks on Fisheries Technology issued prior to 1950.—in preparation.

IPFC Proceedings 4th Meeting, Quezon City, 1952, Section I.

UNESCO Publications :- The first volume of the list for Ecuador of Scientific Institutions and Scientists in Latin America has

been published by the UNESCO. Volumes under Uruguay, Argentina. Brazil, Puerto Rico, Colombia, Bolivia, Mexico, Venezuela, Chile, Peru and Ecuador have already been completed.

Japanese Publications :- Fisheries Abstracts of Japan — Fishery Survey and Research Department, Tokyo.

General :- Essai Sur la Technique des Salaison De Poisson by Dr. R. Dieuzeide and M Novella— Bulletin No. 167 of the Agriculture and Fisheries Experimental Station of Castigline (Algeria).

PRINTED AT THE ASSUMPTION PRINTING PRESS, BY G. ROCHEREAU, PUBLISHER
51, ORIENTAL AVENUE, BANGKOK. 31/1/1953.